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## Guest Editors' Afterword

### Probing Play: The Research We Need

UNDERSTANDING the role of play in children's learning and development is crucially important because such understanding should inform decisions about how young children spend their time. Yet decision makers are increasingly treating play as dispensable and replacing preschoolers' playtime with academics (Bassock and Rorem 2013). This state of affairs has led to a surge of interest in improving understanding of play's importance (Hirsh-Pasek et al. 2009; Lillard et al. 2013) and prompted this special issue. In addressing the current state of affairs in play research, these articles provide ample fuel for further inquiry. The authors of these articles raised many key issues, among them: (1) the need for clearer operational definitions of play; (2) the importance of improving methodological rigor in studies of play; (3) the difficulty of eliciting authentic play in experimental settings; and (4) the need to look separately at play quantity and play quality in examining the role of play in development. Before discussing these issues further, we raise the overarching concern of researchers subscribing to a "play ethos."

"Play ethos" refers to the dominant cultural view that play is good for children (Smith 1988). This ethos is so strong that it can taint how researchers design studies and interpret results. Theoretically, people might fall along a continuum of optimistic to agnostic to pessimistic with regard to the role of play in development, but the play ethos pushes the predominant stance towards the optimistic pole. Noting methodological and interpretational problems in much of the research, in their review article Lillard and her colleagues (2103) called on researchers to approach studies of play with an agnostic stance, because only from such a place can we rightly determine the role of play. The authors in this volume represent a range of stances along this continuum, however, from Laura Berk and Adena Meyer's self-described optimistic stance to Kathleen Roskos and James Christie's more measured one. This clouding effect of the ethos is important to bear in mind as we consider how the four themes emerged across the articles.

In their article, Paul Harris and Malak Jaloul address the quantity versus quality theme. Drawing an analogy between pretend play and gasoline, these authors stated that an Aston-Martin can run just as well on a little gasoline as on a full tank and that it is only when the tank is actually empty that there is a problem. By these lights, pretend play is crucial to development, but only a very small quantity of it is needed to reap all its benefits. Harris and Jaloul point out that this situation would explain the ambiguous results that Lillard and her coauthors (2013) found in their review, for example, that pretend play is inconsistently related to theory of mind, the insight that others' have minds that represent the world. This inconsistency could stem from one needing just a little pretending to get the relationship off the ground; the correlations that exist, then, are due to extraneous factors. On the face of it, this point explains the purported situation for children with autism: they do not engage in pretend play, and they fail to develop theory of mind.

One problem with this account is that children with autism are not all bereft of pretend play. Connie Kasari, Ya-Chih Chang, and Stephanie Patterson point out in their article that although their pretend play is different, in that it lacks "playfulness" and is less often spontaneous, many children with autism do pretend. However, even those who engage in a minimal quantity of pretend play do not follow the normal course in developing a theory of mind. Perhaps one needs to examine the quality of the pretend play more closely. Indeed, Harris (2000) himself has pointed out that social pretend play might be particularly important to theory of mind.

The quality of play also figures importantly in the article by Elena Bodrova, Carrie Germeroth, and Deborah Leong. They acknowledge the difficulty in measuring the contribution of play to development, but they believe the trouble stems from recent changes in children's play, which they claim has suffered a steep qualitative decline. They observe that, in earlier times, pretend play typically took more complex "mature" forms that were richer in role playing, and that children today also seem less able to sustain play scenarios over long intervals. The reason for this is that children have less playtime, and therefore are less able to develop the mature forms. Bodrova and her colleagues believe the consequence of achieving less mature play is deficiencies in the development of "executive function" and self-control.

Yet in this regard we still do not know whether children's play behaviors contribute to better self-regulation, or if, conversely, children who can better regulate themselves will perform better at various kinds of play. We also do not

have statistical evidence that play quality is degraded among children today. Sandra Russ and Jessica Dillon (2011) found no decrease in the quality of children's play over the last two decades, and Vivian Gussey Paley (1995, 2005) describes very rich pretend play by contemporary preschool children. Yet Bodrova, Germeth, and Leong raise an interesting issue with regard to whether certain qualities of play assist self-regulation. Berk and Meyers raise this issue as well and ask whether some children might be assisted by adult guidance towards particular forms of play.

Also touching on the themes of play quality and eliciting authentic play, Deena Weisberg and her colleagues Jennifer Zosh, Kathy Hirsh-Pasek, and Roberta Golinkoff discuss the impact of different kinds of play for supporting language development. Specifically, they found that children whose mothers had lower levels of education benefited from directed play by learning more vocabulary items than children whose mothers had higher levels of education. The children of more educated mothers benefited from "guided" play, in which adults follow children's leads. Weisberg and her coauthors take the position that pretend play is related to language development, and they begin to sort out the circumstances of exactly how this adult-supported play might facilitate development.

Is directed play authentic play? Theories of play typically include that it is voluntary, spontaneous, and done for its own sake (Pellegrini 2009). Guidance and direction might result in activity that is more like work, or as Weisberg and her colleagues colorfully put it here, "chocolate-covered broccoli." Regardless, we take the point that different kinds of play (or play-like) interventions can have differential impact on different subsets of children. Angeliki Nicolopoulou and Hande Ilgaz discuss interventions as well and conclude that "we need careful and probing investigations of such questions as the optimal modes and degrees of adult involvement, guidance, assistance, and facilitation."

Although we have thus far focused mainly on the second two themes, the first two themes logically precede them: we need a better operational definition of what authentic play is, and then we need methodological rigor when we study it. Roskos and Christie provide a model case of this in extending their prior review on play and literacy development, specifying a definition of play and exactly what level of evidence is needed for making an argument on play. Sandra Russ and Claire Wallace also focus on rigor by stressing the need to look at different subsets of children, different components of play, different types of tasks, and different types of training, rather than lumping together subtypes in

a manner that could obscure specific results. But here we note how the question of causal effect arises once again: Could it be that social interaction alone in play makes the crucial difference to development, and that directed or guided play remains just one of many contexts in which that interaction is heightened? So far we do not know, and beginning our investigations with a truly agnostic stance is crucial (see Lillard et al. 2013).

Allison Gopnik and Caren Walker examine exploratory play as a context that promotes children's problem-solving abilities. Methodological rigor in examining exactly what is happening in play, and linking that to the precise development we expect, is inherent in their approach. For Gopnik and Walker, the heart of pretending, the ability to intentionally reason in a counterfactual world, starts an "engine of learning" that contributes to causal reasoning in the real world. Children begin with a notion, notice how it fails to jibe with evidence, and then formulate and test new, more workable theories. Gopnik and Walker urge the collaboration of developmental psychologists, philosophers, and computer scientists to bring increased rigor and deeper insight to the study of pretend play.

To conclude, these articles touch on the need for conceptual rigor in how we define play, the importance of using the best methods in studying play and of considering whether elicited play is authentic, the separation of quality and quantity, and the need to keep an agnostic stance as we approach the evidence. We are in the midst of a resurgence of interest in play, an activity that is ubiquitous and universal in childhood. Indeed, animals of all types play; some claim that even octopuses play (Borrell 2009). Although adults still play, *pretend* play is unique to childhood and we call it something else when adults engage in it (see Smith and Lillard 2012), like improvisation (on the stage) or daydreaming (Sawyer 1997). Better understanding of this complex and charming activity could tell us much more about the juvenile mind—and possibly even how to help its development.

— Angelina S. Lillard, Sandra W. Russ, Kathy Hirsh-Pasek, and Roberta Michnick Golinkoff, Guest Editors

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